

IN THE CLAIMS:

1. A method for analyzing a human cell<sup>\*</sup> having an average-straight-line-velocity of between 0 and 10  $\mu\text{m}/\text{min}$  by suppressing movement of the human cell caused by other than activity of the human cell itself comprising the steps of:

B<sup>1</sup> placing the human cell<sup>\*</sup> having an average straight line velocity of between 0 and 10  $\mu\text{m}/\text{min}$  in a solution containing a viscosity enhancement medium<sup>7</sup>; and

measuring the motility of the human cell in the solution.

B<sup>2</sup> 3. A method as described in Claim 1 wherein the viscosity enhancement medium is hyaluronic acid or chondroitin sulfate or cellulose ester or polysaccharide.

9. A method for analyzing a human cell<sup>\*</sup> by suppressing movement of the human cell caused by other than activity of the human cell itself comprising the steps of:

B<sup>3</sup> placing the cell<sup>\*</sup> having an average straight line velocity of between 0 and 10  $\mu\text{m}/\text{min}$  in a solution; and

measuring the motility of the human cell in the solution when there is no attachment <sup>of the cell</sup> to any surface (of the cell) involved.

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11. A method for analyzing a human cell comprising the steps of:

B4 placing the human cell having an average straight line velocity of between 0 and 10  $\mu\text{m}/\text{min}$  in a solution having a viscosity of about 100-5000 centipoise; and

performing two-dimensional or three-dimensional migration analysis on the cell in the solution.

12. A method for analyzing <sup>motile human</sup> a cell comprising the steps of:

placing the cell in a solution having a viscosity of about 100-5000 centipoise;

and

analyzing migration of the cell in the solution which occurs (without adherence <sup>of the cell</sup> to any surface.)

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B5 17. A method for analyzing <sup>motile</sup> a human cell comprising the steps of:

placing the human cell having an average straight line velocity of between 0 and 10  $\mu\text{m}/\text{min}$  in a solution having a viscosity of about 100-5000 centipoise; and

B5 measuring motility of the cell in the solution, where surface attachment by the cell to any surface is not utilized.

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~~Cancel Claims 10, 13-15, 18-22, 24 and 32-37.~~

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23. A method for analyzing a <sup>motile</sup> human cell by suppressing movement of the human cell caused by other than activity of the human cell itself comprising the steps of:

placing the human cell having an average straight line velocity of between 0 and 10  $\mu\text{m}/\text{min}$  in a solution; and

B6 placing methyl cellulose in the solution to reduce ambient motion of the human cell in the solution and eliminate convective motion.

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25. A method for analyzing a <sup>motile</sup> human cell by suppressing movement of the human cell caused by other than activity of the human cell itself comprising the steps of:

placing the human cell in a solution; and

<sup>placing</sup>  
(using) methyl cellulose in the solution for stopping the effects of gravity on the human cell in the solution.

26. A method for analyzing a <sup>motile</sup> human cell by suppressing movement of the human cell caused by other than activity of the human cell itself comprising the steps of:

placing the human cell having an average straight line velocity of between 0 and

<sup>B</sup> 710  $\mu\text{m}/\text{min}$  in a solution; and

<sup>placing</sup>  
(using) methyl cellulose in the solution <sup>to reduce</sup> for ~~reducing~~ <sup>eliminate</sup> or ~~eliminating~~ the effects of micro-turbulances due to thermal convection in the solution.

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27. A method for analyzing a <sup>motile</sup> human cell comprising the steps of:

<sup>B8</sup> placing the human cell having an average straight line velocity of between 0 and 10  $\mu\text{m}/\text{min}$  in a solution; and

introducing methyl cellulose in the solution for stopping motion of the cells due to mechanical movement of a plate on which the cells are disposed.

28. A method for analyzing a <sup>motile</sup> human cell comprising the steps of:

placing the human cell having an average straight line velocity of between 0 and 10  $\mu\text{m}/\text{min}$  in a solution; and

introducing a viscous fluid having a viscosity of about 100-5000 centipoise in the solution for stopping or reducing the effects of gravity on the cell.

29. A method for analyzing a <sup>motile</sup> human cell comprising the steps of:

placing the human cell having an average straight line velocity of between 0 and 10  $\mu\text{m}/\text{min}$  in a solution; and

introducing a viscous fluid having a viscosity of about 100-5000 centipoise in the solution for reducing the effects of micro-turbulences due to thermal convection.

30. A method for analyzing a <sup>motile</sup> human cell comprising the steps of:

placing the cell in a solution; and

introducing a viscous fluid having a viscosity of about 100-5000 centipoise in the solution for stopping motion of the cells due to mechanical movement of <sup>LAB</sup>the plate.

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31. A method for analyzing a <sup>human</sup> human cell by suppressing movement of the human cell caused by other than activity of the human cell itself comprising the steps of:

placing the human cell having an average straight line velocity of between 0 and 10  $\mu\text{m}/\text{min}$  in a solution; and

using methyl cellulose or any viscous fluid to separate biological motility from ambient motility.

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Please add the following claim.

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38. A method for analyzing either a T-cell, dendritic cell, B-cell or lymphocyte having an average straight line velocity of between 0 and 10  $\mu\text{m}/\text{min}$  by suppressing movement of either a T-cell, dendritic cell, B-cell or lymphocyte caused by other than activity of either a T-cell, dendritic cell, B-cell or lymphocyte itself comprising the steps of:

placing either a T-cell, dendritic cell, B-cell or lymphocyte having an average straight line velocity of between 0 and 10  $\mu\text{m}/\text{min}$  in a solution containing a viscosity enhancement medium; and

B/D

measuring the motility of either a T-cell, dendritic cell, B-cell or lymphocyte in the solution.

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